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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

252011-1940

First Inventor

Young et al.

Title

IMAGE SENSOR WITH VERTICALLY INTEGRATED THIN-FILM  
PHOTODIODE

Express Mail Label No.

EL993864880US

PTO  
U.S. PTO  
10/780790  
22278**APPLICATION ELEMENTS**

See MPEP Chapter 600 concerning utility patent application contents

**ADDRESS TO:**Mail Stop Patent Application  
P.O. Box 1450  
Commissioner for Patents  
Alexandria, VA 22313-1450☐ APPLICANT REQUESTS EARLY PUBLICATION UNDER 37 CFR 1.219 (additional fee)1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)2. ☐ Applicant claims small entity status.3. ☒ Specification (preferred arrangement set forth below) [Total Pages **20** ]

- Descriptive title of the invention
- Cross References to Related Applications
- Statement Regarding Fed. Sponsored R&D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4. ☒ Drawing(s) (35 USC 113) [Total Sheets **8** ]5. Oath or Declaration [Total Pages **2** ]a. ☒ Newly Executed (original or copy)b. ☐ Copy from a prior application (37 CFR §1.63(d))  
(for continuation/divisional with Box 18 completed)i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application,  
see 37 CFR 1.63(d)(2) and 1.33(b).6. ☐ Application Data Sheet. See 37 CFR 1.76Assignee  
Name and Address  
(if applicable)7. ☐ CD-ROM or CD-R in duplicate, large table or Computer  
Program (Appendix)8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)a. ☐ Computer Readable Copy (CRF)

b. Specification Sequence Listing on:

i. ☐ CD-ROM or CD-R (2 copies); orii. ☐ Paperc. ☐ Statements verifying identity of above copies**ACCOMPANYING APPLICATION PARTS**9. ☒ Assignment Papers (cover sheet & Documents(s))10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of  
Attorney11. ☐ English Translation Document (if applicable)12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS  
Citations13. ☐ Preliminary Amendment14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)16. ☐ Request and Certification under 35 U.S.C.  
122(b)(2)(B)(i). Applicant must attach form  
PTO/SB/35 or its equivalent.17. ☐ Other: \_\_\_\_\_**18. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:**☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: /**Prior application information: Examiner** \_\_\_\_\_**Group / Art Unit:** \_\_\_\_\_For CONTINUATION OR DIVISIONAL APPS only: the entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. This incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.**18. CORRESPONDENCE ADDRESS**

Customer Number or Bar Code Label

24504

(Insert Customer No. or Attach bar code label here)



Correspondence address below

NAME

Daniel R. McClure  
Thomas, Kayden, Horstemeyer & Risley, L.L.P.

ADDRESS

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Name (Print/Type)

Daniel R. McClure

Registration No. (Attorney/Agent)

38,962

Signature



Date

2-18-04

021804

**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revisions.

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**896.00****Complete If Known**

|                      |                   |
|----------------------|-------------------|
| Application Number   | Unassigned        |
| Filing Date          | February 18, 2004 |
| First Named Inventor | Yaung             |
| Examiner Name        | Unassigned        |
| Group / Art Unit     | Unassigned        |
| Attorney Docket No.  | 252011-1940       |

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☒ Credit Card ☐ Money Order ☐ Other ☐ None
☒ Deposit Account

Deposit Account Number

**20-0778**

Deposit Account Name

**Thomas, Kayden, Horstemeyer Risley, L.L.P.**

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account
**FEE CALCULATION****1. BASIC FILING FEE**

| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description        | Fee Paid       |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|----------------|
| 1001                  | 770                   | 2001                  | 385                   | Utility Filing Fee     | 770            |
| 1002                  | 340                   | 2002                  | 170                   | Design Filing Fee      |                |
| 1003                  | 530                   | 2003                  | 265                   | Plant Filing Fee       |                |
| 1004                  | 770                   | 2004                  | 385                   | Reissue Filing Fee     |                |
| 1005                  | 160                   | 2005                  | 80                    | Provisional Filing Fee |                |
| <b>SUBTOTAL (1)</b>   |                       |                       |                       |                        | <b>(\$770)</b> |

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

|                     | Extra Claims | Fee From Below | Fee Paid      |
|---------------------|--------------|----------------|---------------|
| Total Claims        | 20           | - 20** = 0     | X 18.00 = 0   |
| Independent Claims  | 4            | - 3** = 1      | X 86.00 = 86  |
| Multiple Dependent  | 0            |                | 290.00 = 0    |
| <b>SUBTOTAL (2)</b> |              |                | <b>(\$86)</b> |

| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description   |
|-----------------------|-----------------------|-----------------------|-----------------------|---|
| 1202                  | 18                    | 2202                  | 9                     | Claims in excess of 20                                    |
| 1201                  | 86                    | 2201                  | 43                    | Independent claims in excess of 3                         |
| 1203                  | 290                   | 2203                  | 145                   | Multiple dependent claim, if not paid                     |
| 1204                  | 86                    | 2204                  | 43                    | **Reissue independent claims over original patent         |
| 1205                  | 18                    | 2205                  | 9                     | **Reissue claims in excess of 20 and over original patent |
| <b>SUBTOTAL (2)</b>   |                       |                       |                       |   |

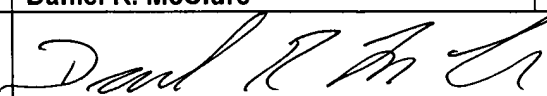
\*\*or number previously paid, if greater; For Reissues, see above

**FEES CALCULATION (continued)****3. ADDITIONAL FEES**

| Large Entity Fee Code | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description  | Fee Paid       |
|-----------------------|-----------------------|-----------------------|-----------------------|--|----------------|
| 1051                  | 130                   | 2051                  | 65                    | Surcharge-late filing fee or oath  |                |
| 1052                  | 50                    | 2052                  | 25                    | Surcharge-late provisional filing fee or cover sheet                       |                |
| 1053                  | 130                   | 1053                  | 130                   | Non-English specification  |                |
| 1812                  | 2,520                 | 1812                  | 2,520                 | For filing a request for ex parte reexamination                            |                |
| 1804                  | 920*                  | 1804                  | 920*                  | Requesting publication of SIR prior to Examiner action                     |                |
| 1805                  | 1,840*                | 1805                  | 1,840*                | Requesting publication of SIR after Examiner action                        |                |
| 1251                  | 110                   | 2251                  | 55                    | Extension for reply within first month                                     |                |
| 1252                  | 420                   | 2252                  | 210                   | Extension for reply within second month                                    |                |
| 1253                  | 950                   | 2253                  | 475                   | Extension for reply within third month                                     |                |
| 1254                  | 1,480                 | 2254                  | 740                   | Extension for reply within fourth month                                    |                |
| 1255                  | 2,010                 | 2255                  | 1,005                 | Extension for reply within fifth month                                     |                |
| 1401                  | 330                   | 2401                  | 165                   | Notice of Appeal   |                |
| 1402                  | 330                   | 2402                  | 165                   | Filing a brief in support of an appeal                                     |                |
| 1403                  | 290                   | 2403                  | 145                   | Request for oral hearing   |                |
| 1451                  | 1,510                 | 1451                  | 1,510                 | Petition to institute a public use proceeding                              |                |
| 1452                  | 110                   | 2452                  | 55                    | Petition to revive-unavoidable   |                |
| 1453                  | 1,330                 | 2453                  | 655                   | Petition to revive-unintentional   |                |
| 1501                  | 1,330                 | 2501                  | 665                   | Utility issue fee (or reissue)   |                |
| 1502                  | 480                   | 2502                  | 240                   | Design issue fee   |                |
| 1503                  | 640                   | 2503                  | 320                   | Plant issue fee  |                |
| 1460                  | 130                   | 1460                  | 130                   | Petitions to the Commissioner  |                |
| 1807                  | 50                    | 1807                  | 50                    | Processing fee for provisional application                                 |                |
| 1806                  | 180                   | 1806                  | 180                   | Submission of Information Disclosure Stmt                                  |                |
| 8021                  | 40                    | 8021                  | 40                    | Recording each patent assignment per property (times number of properties) | 40             |
| 1809                  | 770                   | 2809                  | 385                   | Filing a submission after final rejection (37 CFR § 1.129(a))              |                |
| 1810                  | 770                   | 2810                  | 385                   | For each add. invention to be examined (37 CFR 1.129(b))                   |                |
| 1801                  | 770                   | 2801                  | 385                   | Request for Continued Examination (RCE)                                    |                |
| 1802                  | 900                   | 1802                  | 900                   | Request for expedited exam. of a design application                        |                |
| Other fee (specify)   |                       |                       |                       |  |                |
| <b>SUBTOTAL (3)</b>   |                       |                       |                       |  | <b>(\$ 40)</b> |

\*Reduced by Basic Filing Fee Paid

**SUBMITTED BY**

|                       |   |                  |                |                  |                     |
|-----------------------|---|------------------|----------------|------------------|---------------------|
| Typed or Printed Name | <b>Daniel R. McClure</b>  | Registration No. | <b>38,962</b>  | Telephone Number | <b>770-933-9500</b> |
| Signature             |  | Date             | <b>2-18-04</b> |                  |                     |

**WARNING: Information on this form may become public. Credit Card information should not be included on this form. Provide credit card information and authorization on PTO-2038**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 37 USC 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: **Yaung et al.**For: **IMAGE SENSOR WITH VERTICALLY INTEGRATED THIN-FILM PHOTODIODE****CERTIFICATE OF EXPRESS MAIL**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed for filing in the above case are the following documents:

Return Postcard  
Utility Patent Application Transmittal Page  
Fee Transmittal Page  
Utility Patent Application Consisting Of:  
11 Pages of Specification  
8 Pages of Claims (Claims 1-20)  
1 Page of Abstract  
8 Pages of Formal Drawings (Figs. 1A-1H)  
Credit Card Authorization Form (Amount: \$896.00)  
Declaration (executed)  
Assignment/Recordation Form Cover Sheet

Further, the Commissioner is authorized to charge Deposit Account No. 20-0778 for any additional fees required. The Commissioner is requested to credit any excess fee paid to Deposit Account No. 20-0778.

Respectfully submitted,

**Daniel R. McClure; Reg. No. 38,962****THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**

100 Galleria Parkway, N.W.  
Suite 1750  
Atlanta, Georgia 30339-5948

Our Docket No: **252011-1940**

I hereby certify that all correspondence listed above are being deposited for delivery to the above addressee, with the United States Postal Service "**EXPRESS MAIL POST OFFICE TO ADDRESSEE**" service under 37 CFR §1.10 on the date indicated below:

The envelope has been given U.S. Postal Service "Express Mail Post Office To Addressee" Package # **EL993864880US**.

Date:

February 18, 2004  
Hui Chin Barnhill